

Appl. No. 10/065,922
Amndt dated SEP 26, 2003
Reply to Office Action of June 30, 2003

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims

- A1
1. (currently amended) An integrated circuit comprising:
a substrate;
a feature formed on the substrate, ~~the feature~~;
an insulating layer formed on the feature; and
a radiation protection layer comprising a conductive material covering at least a portion of the feature sensitive to radiation, the radiation protection layer is isolated from the feature by the insulating layer, the radiation protection layer is sufficiently thick to reduce ~~reducing penetration of radiation damage~~ to the portion of the feature sensitive to radiation ~~to reduce radiation damage to the feature~~.
 2. (currently amended) The integrated circuit of claim 1 wherein the feature comprises a ferroelectric capacitor having top and bottom electrodes separated by a ferroelectric layer, the ferroelectric layer being sensitive to radiation.
 3. (currently amended) The integrated circuit of claim 2 wherein the radiation protection layer is located on sidewalls of the capacitor to form spacers to reduce radiation damage to the ferroelectric layer.
 4. (original) The integrated circuit of claim 2 further comprises a plurality of features to form a memory array.
 5. (currently amended) The integrated circuit of claim 4 wherein the radiation protection layer comprises sidewall spacers is located on sidewalls of the capacitor ~~to form spacers~~ to reduce radiation damage to the ferroelectric layer.
 6. (cancelled)

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7. (cancelled)

8. (cancelled)

9. (cancelled)

10. (cancelled)

11. (currently amended) The integrated circuit of any of claims 1-5 & wherein the material of the radiation protection layer comprises a material which serves as a barrier to UV radiation.

A1
cont.

12. (cancelled)

13. (currently amended) The integrated circuit of claim 11 wherein ~~an insulating layer separates the spacers from the feature~~, the insulating layer serves as a barrier to hydrogen.

14. (currently amended) The integrated circuit of claim 11 wherein the material of the radiation protection layer comprises a noble metal, oxides, or compounds thereof.

15. (currently amended) The integrated circuit of claim ~~14~~ 13 wherein ~~an insulating layer separates the spacers from the feature~~ the material of the radiation protection layer comprises a noble metal, oxides, or compounds thereof.

16. (cancelled)

17. (cancelled)

18. (cancelled)

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19. (cancelled)

20. (currently amended) A method of fabricating an integrated circuit comprising:

providing a substrate with a feature formed on the substrate;

providing an insulating layer over the feature; and

forming a radiation protection layer comprising a conductive material to cover at least a portion of the feature sensitive to ~~UV~~ radiation, the insulating layer electrically isolating the conductive radiation layer from the feature, the ~~UV~~ radiation protection layer sufficiently thick to reduce ~~reducing penetration of radiation damage~~ to the portion of the feature sensitive to UV radiation.

21. (new) The method of claim 20 wherein the feature comprises a ferroelectric capacitor having a ferroelectric layer between top and bottom electrodes, the radiation protection layer reduces radiation damage to the ferroelectric layer.

22. (new) The method of claim 20 wherein forming the radiation protection layer comprises forming spacers comprising the conductive material of the radiation protection layer on sidewalls of a ferroelectric capacitor to reduce radiation damage to the ferroelectric layer of the capacitor.

23. (new) The method of claim 20, 21 or 22 wherein the conductive material of the radiation protection layer comprises a noble metal, oxides, or compounds thereof.